

INTERNATIONAL SEARCH REPORT

US2004/001461

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N15/11 A61K31/713 A61P31/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, EMBASE, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 02/055693 A (RIBOPHARMA AG) 18 July 2002 (2002-07-18) * See the whole document (which discloses much the same matter as the present Application - except the lipophilic group) *	1-18, 20-64, 66-80, 82-85
Y	TUSCHL ET AL: "Small interfering RNAs: a revolutionary tool for the analysis of gene function and gene therapy" MOLECULAR INTERVENTIONS, vol. 2, 2002, pages 158-167, XP002294002 * See page 163, right column (-> attachment of lipophilic residues at the 3'-termini) * -/-	1-18, 20-64, 66-80, 82-85

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *Z* document member of the same patent family

Date of the actual completion of the international search

10 September 2004

Date of mailing of the international search report

24/09/2004

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INTERNATIONAL SEARCH REPORT

US2004/001461

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MANOHARAN: "Oligonucleotide conjugates as potential antisense drugs with improved uptake, biodistribution, targeted delivery, and mechanism of action" ANTISENSE NUCLEIC ACID DRUG DEVELOPMENT, vol. 12, 2002, pages 103-128, XP002294027 cited in the application * See pages 106-112 (Conjugates improving cellular association: lipophilic molecular conjugation) *	1-18, 20-64, 66-80, 82-85
Y	CHIU ET AL: "RNAi in human cells: Basic structural and functional features of small interfering RNA" MOLECULAR CELL, vol. 10, 2002, pages 549-561, XP002978510 cited in the application * See page 552 (left column), and pages 558-559 (Discussion) *	1-18, 20-64, 66-80, 82-85
Y	SCHWARZ ET AL: "Evidence that siRNAs function as guides, not primers, in the Drosophila and human RNAi pathways" MOLECULAR CELL, vol. 10, 2002, pages 537-548, XP002257820 cited in the application * See pages 537-538 (Introduction), and page 544 (right column) *	1-18, 20-64, 66-80, 82-85

INTERNATIONAL SEARCH REPORT

PCT/US2004/001461

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although Claims 52-74 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

PCT/US2004/001461

Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
 - a. type of material
 - ☒ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material
 - ☒ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing
 - ☒ contained in the international application as filed
 - ☐ filed together with the international application in computer readable form
 - ☐ furnished subsequently to this Authority for the purpose of search
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

INTERNATIONAL SEARCH REPORT

Information on patent family members

US2004/001461

Patent document cited in search report	Publication date	Patent-family member(s)	Publication date
WO 02055693 A	18-07-2002	DE 10100586 C1	11-04-2002
		DE 10160151 A1	26-06-2003
		CA 2432341 A1	18-07-2002
		CA 2432350 A1	18-07-2002
		WO 02055692 A2	18-07-2002
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		EP 1349927 A2	08-10-2003
		EP 1352061 A2	15-10-2003
		ES 2204360 T1	01-05-2004
		JP 2004519457 T	02-07-2004
		JP 2004519458 T	02-07-2004
		US 2004001811 A1	01-01-2004
		ZA 200304500 A	18-11-2003
		WO 03033700 A1	24-04-2003
		WO 03035868 A1	01-05-2003
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		EP 1438405 A1	21-07-2004
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		EP 1438409 A1	21-07-2004
		EP 1438056 A1	21-07-2004
		US 2004038921 A1	26-02-2004
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		US 2004091457 A1	13-05-2004
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